

That which is claimed is:

1. A method to reduce immune tolerance in a subject comprising administering a composition to the subject to reduce recruitment of tolerance-inducing antigen-presenting cells (APCs) or their precursors to a site of APC recruitment in the subject.
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2. The method of claim 1, wherein the tolerance-inducing APCs express elevated levels of indoleamine 2,3-dioxygenase (IDO).
- 10 3. The method of claim 1, wherein the subject is human.
4. The method of claim 1, wherein the composition comprises a compound that blocks the interaction between a biological signal present at the site of APC recruitment and a protein expressed on the surface of the tolerance-inducing antigen-presenting cells (APCs) or their precursors.
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5. The method of claim 4, wherein the biological signal present at the site of APC recruitment comprises mip-3 α .
- 20 6. The method of claim 4, wherein the protein expressed on the surface of the tolerance-inducing antigen-presenting cells (APCs) or their precursors comprises a chemokine receptor.
7. The method of claim 6, wherein the chemokine receptor comprises CCR6.
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8. The method of claim 7, wherein the compound comprises an antibody to CCR6.
9. The method of claim 7, wherein the compound comprises a CCR6 antagonist.
- 30 10. The method of claim 1, wherein the site of APC recruitment comprises a tumor.

11. The method of claim 1, wherein the site of APC recruitment comprises a site of infection.
12. The method of claim 11, wherein the site of infection comprises infection by
5 human immunodeficiency virus (HIV).
13. The method of claim 1, wherein the site of APC recruitment comprises lymphoid tissue.
- 10 14. The method of claim 13, wherein the site of APC recruitment comprises lymphoid tissue draining a tumor.
15. The method of claim 13, wherein the site of APC recruitment comprises lymphoid tissue draining a site of infection.
- 15 16. A method to reduce immune tolerance to a tumor in a subject comprising administering a composition to the subject to reduce recruitment of tolerance-inducing antigen-presenting cells (APCs) or their precursors to a tumor and/or a tumor draining lymph node in the subject.
- 20 17. The method of claim 16, wherein the subject is human.
18. The method of claim 16, wherein the composition comprises a compound that reduces binding of a ligand to a chemokine receptor expressed on the surface of the
25 tolerance-inducing antigen-presenting cells (APCs) or their precursors.
19. The method of claim 18, wherein the ligand comprises mip-3 α .
20. The method of claim 18, wherein the chemokine receptor comprises CCR6.

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21. A method to identify a compound for reducing recruitment of tolerance-inducing antigen-presenting cells (APCs) or their precursors to a signal for APC recruitment comprising measuring whether the compound reduces migration of tolerance-inducing APCs or their precursors towards a biological signal for APC recruitment.

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22. The method of claim 21, further comprising the steps of:

(a) identifying tolerance-inducing antigen-presenting cells (APCs) that express levels of indoleamine 2,3-dioxygenase (IDO) enzyme activity sufficient to suppress proliferation of T cells;

10 (b) identifying at least one of the biological signals that recruits tolerance-inducing APCs;

(c) adding a test compound; and

(d) measuring whether the compound reduces migration of the identified tolerance-inducing APCs to the identified signal for APC recruitment.

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23. The method of claim 22, further comprising determining the identity of at least one protein present on the surface of the tolerance-inducing APCs.

24. The method of claim 22, further comprising determining whether the at least one
20 protein present on the surface of the tolerance-inducing APCs binds to the identified signal for APC recruitment.

25. The method of claim 23, wherein the protein present on the surface of the tolerance-inducing APCs comprises a chemokine receptor.

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26. The method of claim 25, wherein the chemokine receptor comprises CCR6.

27. The method of claim 26, wherein the signal for biological recruitment comprises mip-3 α .

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28. The method of claim 26, wherein the compound comprises an antibody to CCR6.

29. The method of claim 26, wherein the compound comprises a CCR6 antagonist.
30. The method of claim 21, wherein the compound for reducing recruitment of
5 tolerance-inducing antigen-presenting cells (APCs) or their precursors to a signal for
APC recruitment at least partially inhibits binding of a ligand that causes recruitment to a
chemokine receptor expressed on the surface of the tolerance-inducing antigen-presenting
cells (APCs) or their precursors.
- 10 31. The method of claim 21, further comprising testing the ability of the compound to
inhibit migration of tolerance-inducing antigen-presenting cells (APCs) or their
precursors to a tumor draining lymph node.
32. A composition to reduce immune tolerance in a subject comprising a compound
15 that reduces recruitment of tolerance-inducing antigen-presenting cells (APCs) or their
precursors to a site of APC recruitment in a subject.
33. The composition of claim 32, further comprising a pharmaceutically acceptable
carrier.
- 20 34. The composition of claim 32, wherein the tolerance-inducing APCs express
elevated levels of indoleamine 2,3-dioxygenase (IDO).
35. The composition of claim 32, wherein the subject is human.
- 25 36. The composition of claim 32, wherein the composition comprises a compound
that blocks the interaction between a biological signal present at the site of APC
recruitment and a protein expressed on the surface of the tolerance-inducing antigen-
presenting cells (APCs) or their precursors.

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37. The composition of claim 32, wherein the compound reduces binding of a ligand present at the site of APC recruitment to a chemokine receptor expressed on the surface of the tolerance-inducing antigen-presenting cells (APCs) or their precursors.
- 5 38. The composition of claim 37, wherein the ligand comprises mip-3 α .
39. The composition of claim 37, wherein the chemokine receptor comprises CCR6.
40. The composition of claim 39, wherein the compound comprises a protein that
10 binds to CCR6.
41. The composition of claim 39, wherein the compound comprises an antibody to CCR6.
- 15 42. The composition of claim 39, wherein the compound comprises a CCR6 antagonist.
43. The composition of claim 32, wherein the site of APC recruitment comprises a tumor.
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44. The composition of claim 32, wherein the site of APC recruitment comprises lymphoid tissue.
45. The composition of claim 32, wherein the site of APC recruitment comprises a
25 site of infection.
46. The composition of claim 32, wherein the site of infection comprises infection by human immunodeficiency virus (HIV).